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PERFORMANCE ANALYSIS OF STAGGERED WIRE MESH MATRIX REGENERATIVE HEAT EXCHANGER

Arun Kumar[1] & S. K. Verma[2]

[1]Research Scholar, Department of Mechanical Engineering, NIT, Patna, Bihar, India

[2]Professor, Department of Mechanical Engineering, NIT, Patna, Bihar, India

ABSTRACT

Numerical analysis of staggered wired mesh matrix (SWMM) regenerative heat exchanger has been done and the performance of SWMM has been evaluated experimentally. The range of parameters considered was Reynolds number from 2208 to 4766 and porosity from 0.83 to 0.88. The experimental results revealed that the effectiveness of heat exchanger decreases with time for uniform mass flow rate and with the increase in mass flow rate for a given time.

KEYWORDS: *Effectiveness, Performance, Regenerative Heat Exchange (RHE), Staggered Wired Mesh Matrix (SWMM)*